

## Caneja, Elizabeth

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**From:** Steve Schubert <Steve.Schubert@earthology.info>  
**Sent:** Sunday, February 7, 2021 10:06 AM  
**To:** ASRWells  
**Cc:** timothy\_breen@fws.gov; reid.hyle@myfwc.com  
**Subject:** ASR - Manatee comment

[Please remember, this is an external email]

SFWMD,

Below is a comment on the ASR document posted on your website.

Please review the information beginning on page 759 of 857 of the ASR Appendices document, specifically section 6.3.1 Manatee Thermal Refuge.

The document states (on page 761 of 857), "An ambient water temperature of 65 degrees F was selected to represent the trigger at which point ASR discharges could support manatee thermal refugia..."

Since the ASR discharge is expected to be around 77 degrees F year-round, it could become a refugia for manatees whenever the water in the Kissimmee River or Lake O drops noticeably below 77 degrees F (not necessarily 65 degrees). The question then becomes, at what point is there an effect to the species? Manatees typically leave Lake O as water temperatures drop in fall/winter, but if ASR's are discharging, that could delay manatees from leaving the lake and heading to the estuaries anytime the lake is less than @ 77 degrees. If they wait too long in the lake, because of ASR discharges, they may not be able to reach warmer waters in the estuaries if ASRs are turned off and if the intervening waters (C-43 and C-44) reach 65 degrees or lower.

I am suggesting the analysis performed by STANTEC may be more simplistic than real world scenarios. I therefore suggest you coordinate this issue with the FWC and USFWS manatee biologists to eliminate the threat of ASR to this species, or develop adaptive management protocols for ASR discharges and monitoring of manatees in the Kissimmee River and Lake Okeechobee.

Thanks,  
Steve Schubert